REMARKS

In the Office Action of May 4, 2006;

Claim 10 was rejected under 35 U.S.C. 112, first paragraph, for failing to meet the enablement requirement because the limitation "current system position" allegedly was not described adequately in the specification. Claims 11-15, 17-20 and 25-27 were rejected as dependent on Claim 10.

Claims 14, 15 and 18-20 were rejected under 35 U.S.C. 112, second paragraph, as indefinite, because of the use of the term "effective return" in claims 14 and 15 and the lack of an antecedent for "the weighted trade recommendation" in claims 18, 19 and 20.

Claims 10, 12-15 and 17 were rejected under U.S.C. 103(a) as unpatentable over Rickard (U.S. Patent No. 6,016,483) in view of Li (U.S. Patent No. 6,832,210).

Claim 11 was rejected under 35 U.S.C. 103(a) as unpatentable over Rickard in view of Li in further view of Wallman (U.S. Patent No. 6,360,210).

Claims 18-20 were rejected under 35 U.S.C. 103(a) as unpatentable over Rickard and Li in further view of Black (U.S. Patent No. 6,012,042).

Claim 25 was rejected under 35 U.S.C. 103(a) as unpatentable over Rickard and Li in further view of Stewart (U.S. Patent No. 6,195,103).

Claims 26 and 27 were rejected under 35 U.S.C. 103(a) as unpatentable over Rickard, Li and Stewart in further view of Makivic (U.S. Patent No. 6,061,662).

Minor corrections were also required in the specification, Abstract and claims. The requested corrections have been made.

With respect to the rejection under 35 U.S.C. 112, first paragraph, applicants respectfully submit that the term "position," and hence the term "current system position," is well understood in investment circles. Applicants enclose a copy of the definition of the term "position" on pages

524-525 of the Dictionary of Finance and Investment Terms (6th Ed., Barron's, 2003). As set forth at the top of page 525 the term "position" when applied to investments refers to an "investor's stake in a particular security or market." Thus, the term "current system position" refers to the current stake in a particular security or market held by a system or organization. This meaning also appears to be consistent with the meaning of the marketmaker's actual position that was adopted by the Examiner.

Because the term "current system position" has a well-defined meaning to those skilled in the art, it is respectfully submitted that claim 10 and the claims dependent thereon comply with the enablement requirement.

With respect to the rejection of claims 14 and 15 under 35 U.S.C. 112, second paragraph, claim 14 has been revised to delete the parenthetical expression and claim 15 has been canceled. With respect to the rejections of claims 18-20 for insufficient antecedent basis for the phrase "the weighted trade recommendations," this phrase has been revised to delete "the". With these changes the rejection of claims 14 and 18-20 as indefinite is believed to be overcome.

Applicants' invention is directed to a method of trading assets on a market. The method includes the steps of calculating trade recommendation information from each of a plurality of trading sub-models each of which is based on a different time of day and then calculating a trade recommendation on the basis of the trade recommendation information from each of the trading sub-models.

These steps are more fully described in the specification. At its most general level, as described in paragraph 0022 (page 4, line 24 of the specification), the preferred trading model comprises a set of indicator computations combined with a set of rules. The indicator computations analyze past price movements. The rules determine if an action is to be taken and

its timing.

An example of an indicator is set forth in paragraph 0100 at equation 8 (page 16, line 28 of the specification). This indicator is defined as a momentum that is the difference of the current logarithmic middle price x and its moving average (MA) computed in ϑ-time where ϑ-time is a modified business time scale as described in paragraph 0095 (page 15, line 28 of the specification). Another example of an indicator is the value I_χ defined in equation 16 in paragraph 0116 (page 19, line 8 of the specification) which also is a momentum determined by a scaling factor and the difference between the current logarithmic middle price x and the exponential weighted moving average (EMA). Trading signals are given when the indicator crosses certain threshold values.

Examples of rules include a prohibition on any deal within 15 minutes of a prior deal as set forth in paragraph 0050 (page 9, line 27 of the specification) and a prohibition on a deal where price movements since the previous deal are too small as set forth in paragraph 0043 (page 8, line 28 of the specification).

Optimization of trading models is described at paragraphs 0123 through 0160 (page 20, line 10 to page 28, line 8 of the specification). An expression for an effective return $X_{eff.\,\Delta t}$ is set forth in equation 19 in paragraph 0128 (page 21, line 21 of the specification). As indicated, the effective return is a function of time Δt.

Various time functions are used in the different embodiments of the invention claimed in the present application. In the embodiment claimed in withdrawn claims 1-9 and described in detail at paragraphs 0161 through 0184 (page 28, line 9 to page 31, line 28 of the specification), the time period is the time horizon of the trader. Some traders have short time horizons, other have long time horizons and others are in between. In the invention claimed in claims 1-9, trade

recommendation information is based on sub-models each of which is based on a different time horizon. A trading signal is developed as set forth in paragraph 0176 (page 30, line 17 of the specification) by summing the trading signals from all of the sub-models.

In the embodiment recited in claims 10-20 and 25-27, the sub-models are based on different times of the day. Basically, as set forth in paragraph 0191 (page 34, line 1 of the specification) it has been determined that trading models should be based on 24 hour intervals and therefore are characterized by a specific hour of the day. However, as stated at paragraph 0207 (page 36, line 1 of the specification) this would result in a trading system that would make a trading recommendation once in every 24 hours. For example, it might give a recommendation at 10:00 A.M. on every trading day. To provide a trading system that can make trading recommendations more frequently, a series of sub-models are used each of which is updated at a different hour of the day and the recommendations of these models are combined, for example, by summing them. Preferably, 24 such sub-models are used, one for each hour of the day, as recited in claim 11.

In contrast to applicants' invention, Rickard et al. disclose a system for an automated opening of an options exchange. As specified in the Abstract market makers input into the system their current position, a desired target position and their orders. Public orders are also input. The system then allocates order imbalances at the opening of trading. The system is described as alleviating a cumbersome manual method for setting prices at the opening of trading.

As the Examiner acknowledges, Rickard does not calculate trade recommendation information using sub-models based on different times of the day. For this the Examiner relies on Li which is a model for producing up-to-the-minute trading recommendations for individual

pair trades.

This, however, is not what applicants are claiming. As emphasized above, their trading system uses sub-models based on different times of the day and the trade recommendation incorporates information from each of sub-models. Li does not use a plurality of models based on different times of the day and he does not combine the results of such a plurality of models in order to make his up-to-the-minute recommendation. Neither does he suggest such an arrangement.

Claim 10 has been amended to emphasize these distinctions over Li. In particular, claim 10 now recites that trade recommendation information is calculated from each of a plurality of sub-models. Further, claim 10 requires that the trade recommendation be calculated based on said information from each of the sub-models. For, at least, these reasons claim 10 is believed to be patentable over Rickard and Li.

Dependent claims 11-14, 17-20 and 25-27 are believed patentable for the same reason claim 10 is patentable. In addition, claim 11 is believed patentable because Wallman also does not disclose the use of a plurality of sub-models based on different times of day. While Wallman may teach the use of various pricing models, like Li he does not teach the use of models based on different times of the day. Claim 17 is also believed patentable because Rickard does not disclose all the elements of the claimed sub-model and does not disclose the use of a plurality of such sub-models in determining opening prices. For example, claim 17 requires the use of a price filter. A price filter receives prices and filters them by rejecting those that are erroneous. The description at Col. 9, lines 3-21 of the operation of controller 2 to which the Examiner refers is a description of a device that receives orders and outputs prices but it does not disclose or suggest a price filter.

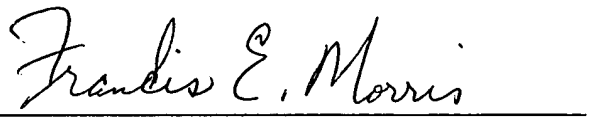
Further, claims 18-20 are believed patentable over the references because they do not suggest the claimed methods of summing weighted trade recommendations of the sub-models. As emphasized above, each sub-model is based on a different time of day. None of the references cited discloses or suggests the use of a plurality of such models or the step of combining their recommendations by summing weighted trade recommendations.

Aside from the fee for an extension of time, no additional fee is believed to be due for filing this response; however, if a fee is due, please charge such fee to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310.

If the Examiner believes a telephone interview would expedite prosecution of this application, she is invited to call applicant's attorney at the number given below.

Respectfully submitted,

Date: October 4, 2006



Francis E. Morris
Reg. No. 24,615
Morgan, Lewis & Bockius LLP
Customer No. 009629
(212) 309-6632

Dictionary of Finance and Investment Terms

Sixth Edition

John Downes
Editor, *Beating the Dow*
Former Vice President, AVCO Financial Services, Inc.
Office for Economic Development, City of New York

Jordan Elliot Goodman
Financial Commentator, *Marketplace Morning Report*
Author, *Everyone's Money Book*
Creator, *The Money Answers Program*
Former Wall Street Correspondent,
MONEY Magazine, Time Warner Incorporated
Former Business News Commentator,
Mutual Broadcasting System

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250 Wireless Boulevard
Hauppauge, NY 11788
http://www.barronseduc.com

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MidCap SPDRs, based on the S&P MidCap 400 Index; the Nasdaq-100 Index Tracking Stock SM; and DIAMONDS, based on the Dow Jones Industrial Averages. *See also* EXCHANGE-TRADED FUNDS; INDEX SHARES.

PORTFOLIO INCOME *see* INVESTMENT INCOME.

PORTFOLIO INSURANCE the use, by a PORTFOLIO MANAGER, of STOCK INDEX FUTURES to protect stock portfolios against market declines. Instead of selling actual stocks as they lose value, managers sell the index futures; if the drop continues, they repurchase the futures at a lower price, using the profit to offset losses in the stock portfolio. The inability of the markets on BLACK MONDAY to process such massive quantities of stock efficiently and the subsequent instituting of CIRCUIT BREAKERS all but eliminated portfolio insurance. *See also* PROGRAM TRADING.

PORTFOLIO MANAGER professional responsible for the securities PORTFOLIO of an individual or INSTITUTIONAL INVESTOR. Also called a *money manager* or, especially when personalized service is involved, an INVESTMENT COUNSEL. A portfolio manager may work for a mutual fund, pension fund, profit-sharing plan, bank trust department, or insurance company. In return for a fee, the manager has the fiduciary responsibility to manage the assets prudently and choose whether stocks, bonds, CASH EQUIVALENTS, real estate, or some other assets present the best opportunities for profit at any particular time. *See also* PORTFOLIO THEORY; PRUDENT-MAN RULE.

PORTFOLIO THEORY sophisticated investment decision approach that permits an investor to classify, estimate, and control both the kind and the amount of expected risk and return; also called *portfolio management theory* or *modern portfolio theory.* Essential to portfolio theory are its quantification of the relationship between risk and return and the assumption that investors must be compensated for assuming risk. Portfolio theory departs from traditional security analysis in shifting emphasis from analyzing the characteristics of individual investments to determining the statistical relationships among the individual securities that comprise the overall portfolio. The portfolio theory approach has four basic steps: *security valuation*—describing a universe of assets in terms of expected return and expected risk; *asset allocation decision*—determining how assets are to be distributed among classes of investment, such as stocks or bonds; *portfolio optimization*—reconciling risk and return in selecting the securities to be included, such as determining which portfolio of stocks offers the best return for a given level of expected risk; and *performance measurement*—dividing each stock's performance (risk) into market-related (systematic) and industry/security-related (residual) classifications.

POSITION

Banking: bank's net balance in a foreign currency.
Finance: firm's financial condition.
Investments:
1. investor's stake in a particular security or market. A LONG POSITION equals the number of shares *owned;* a SHORT POSITION equals the number of shares *owed* by a dealer or an individual. The dealer's long positions are called his *inventory of securities.*
2. Used as a verb, to take on a long or a short position in a stock.

POSITION BUILDING process of buying shares to accumulate a LONG POSITION or of selling shares to accumulate a SHORT POSITION. Large institutional investors who want to build a large position in a particular security do so over time to avoid pushing up the price of the security.

POSITION LIMIT

Commodities trading: number of contracts that can be acquired in a specific commodity before a speculator is classified as a "large trader." Large traders are subject to special oversight by the COMMODITY FUTURES TRADING COMMISSION (CFTC) and the exchanges and are limited as to the number of contracts they can add to their positions. The position limit varies with the type of commodity.

Options trading: maximum number of exchange-listed OPTION contracts that can be owned or controlled by an individual holder, or by a group of holders acting jointly, in the same underlying security. The current limit is 2000 contracts on the same side of the market (for example, long calls and short puts are one side of the market); the limit applies to all expiration dates.

POSITION TRADER commodities trader who takes a long-term approach—six months to a year or more—to the market. Usually possessing more than average experience, information, and capital, these traders ride through the ups and downs of price fluctuations until close to the delivery date, unless drastic adverse developments threaten. More like insurance underwriters than gamblers, they hope to achieve long-term profits from calculated risks as distinguished from pure speculation.

POSITIVE CARRY situation in which the cost of money borrowed to finance securities is lower than the yield on the securities. For example, if a fixed-income bond yielding 10% is purchased with a loan bearing 8% interest, the bond has positive carry. The opposite situation is called NEGATIVE CARRY.

POSITIVE YIELD CURVE situation in which interest rates are higher on long-term debt securities than on short-term debt securities of the same quality. For example, a positive yield curve exists when 20-year Treasury bonds yield 10% and 3-month Treasury bills yield 6%. Such a situation is common, since an investor who ties up his money for a longer time is taking more risk and is usually compensated by a higher yield. When short-term interest rates rise above long-term rates, there is a NEGATIVE YIELD CURVE, also called an INVERTED YIELD CURVE. See chart on next page.

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